IN THE CLAIMS:

1-16. (Cancelled)

- 17. (Currently Amended) An ion exchanger having chelating functional groups prepared by a process according to Claim 1 comprising
- (a) reacting monomer droplets made from at least one monovinylaromatic compound and at least one polyvinylaromatic compound to give a monodisperse, crosslinked bead polymer,
- (b) amidomethylating the monodisperse, crosslinked bead polymer from step (a) with phthalimide derivatives.
- (c) converting the amidomethylated bead polymer from step (b) to an aminomethylated bead polymer, and
- (d) converting the aminomethylated bead polymer from step (c) to ion exchangers having chelating groups.
- 18. (Original) An ion exchanger according to Claim 17 having a macroporous structure.
- 19. (Currently Amended) A process comprising removing heavy metals or noble metals from aqueous solutions, from saline solutions from alkali metal chloride electrolysis, from aqueous hydrochloric acid, from waste water or flue gas scrubber effluent, from ground water or landfill eluate, from liquid or gaseous hydrocarbons, carboxylic acids, or from halogenated hydrocarbons with an ion exchanger having chelating functional groups prepared by a process according to Claim 17.
- 20. (Original) A process according to Claim 19 wherein the metal is mercury, iron, cobalt, nickel, copper, zinc, lead, cadmium, manganese, uranium, vanadium, elements of the platinum group, gold, silver, or a combination thereof.

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- 21. (Original) A process according to Claim 19 wherein rhodium, elements of the platinum group, gold, silver, rhodium- or noble-metal-containing catalyst residues are removed from organic solutions or solvents.
- 22. (Original) A process according to Claim 19 wherein heavy metals or noble metals are removed from recycle wastes.
- 23. (Original) A process according to Claim 19 wherein alkaline-earth metals are removed from saline solutions from alkali metal chloride electrolysis.
- 24. (Original) A process according to Claim 19 wherein heavy metals are removed from substances that are converted by electrolytic treatment.

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